



## Flat Ridge Wind Facility

Joe Mills - Facility Manager

alternativenergy

#### Flat Ridge Wind Facility - Overview



- A 100 MW Wind Facility located ~24 miles southeast of Pratt, KS in Barber County consisting of 40 Clipper Liberty C-96 turbines, each rated at 2.5 MW
- Located on leases totalling more than 5,000 acres
- Owners are Westar Energy, Inc and Flat Ridge Wind Energy, LLC (a wholly owned subsidiary of BP Alternative Energy)
- Westar Energy, Inc. owns 50% of the Flat Ridge Wind Facility and will cause its half of the facility to be operated to serve its customers
- Flat Ridge Wind Energy, LLC has entered into a long-term power sales agreement with Westar Energy, Inc. to sell the energy from the remaining 50 MW of Flat Ridge Wind Facility to Westar
- Interconnection to the grid via the Sunflower Electric Power Cooperative balancing authority area, which is part of the Southwest Power Pool ("SPP") regional reliability organization region.

### Flat Ridge Wind Facility - Construction



 Construction commenced in April 2008 with road cutting and foundation excavation



## Flat Ridge Wind Facility - Construction



Turbine foundation and pedestal following concrete pouring



### Flat Ridge Wind Facility – Turbine Erection



Turbine Erection



Turbine base and lower tower section being installed

## Gearbox being installed into a Nacelle



## Flat Ridge Wind Facility – Additional activities



• Collection system trenching, transmission lines and substation







#### Flat Ridge Wind Facility – Key Stats



- Key statistics:
  - Over 4 miles of transmission line installed
  - ~18 miles of collection system cable installed
  - Received over 520 truckloads of equipment and parts
  - Over 117,000 total hours worked with 220 staff at the peak of construction
  - Employed five cranes in the installation process
  - Included over 16 companies in the Engineering, Procurement, Construction and Commissioning
  - Average of 58,000 miles driven each month is support of the construction.
  - Activities aligned with growing seasons as much as possible to minimize crop damage.

## Flat Ridge Wind Facility – Project Completion



 The Flat Ridge Wind Facility achieved commercial operation in March 2009.



# Flatridge Wind Facility-Turbine Completion





## Flatridge Wind Facility-Turbine Completion





#### Environmental and Wildlife Impact





- Site personnel conduct weekly checks for avian fatalities.
- Contracted professional services of West, Inc. to provide bat monitoring and avian research.

## Environmental and Wildlife Impact





### Community Involvement



- Participate in local events to include:
- Youth Fishing Tournament Sponsor
- County Livestock Show and Auction
- Youth Rodeo Sponsor
- Oktoberfest Car and Bike Show Sponsor